



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,214	02/13/2004	Takanori Nagai	040894-7002	2497
9629	7590	12/21/2004	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			LEE, PETER	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/777,214

Applicant(s)

NAGAI ET AL.

Examiner

Peter Lee

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-24 is/are allowed.
- 6) ☒ Claim(s) 1-9 and 13-20 is/are rejected.
- 7) ☒ Claim(s) 10-12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/13/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Applicant begins referring to parts in the specification disclosure without referring to which actual figures they are located in. This can be found beginning on page 5 line 6. It is required to include matching figure references when referring to corresponding parts.

Appropriate correction is required.

Claim Objections

2. Claim 12 is objected to because of the following informalities:

On page 90 line 20, reference to "the cylindrical insertion portion" is made. Change to --a cylindrical insertion portion-- because no prior mention of such an insertion portion is made.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 3, 4, 5, 6, 7, 15, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishida et al. (US pn 5260750).

Ishida teaches a cartridge type developing agent processing unit (fig. 2 part 60) (ie.

Art Unit: 2852

developer cartridge container) comprising: a main body (fig. 6 part 52) (ie. container body) which includes a cylindrical first container (fig. 2 part 61) (ie. a cylindrical body) made of a synthetic resin having a right end that is opened (fig. 2 part 61b) (ie. opening at one end) and a bottom wall member provided at the other opposite end as seen in the figure 2 (ie. end wall connected to an outer end), the cylinder container and bottom wall defining a toner storing portion (fig. 6 part 60a; note: col. 5 lines 47-50) (ie. developer storage chamber) having a toner filling port on the left end side (fig. 2 part 62; note: col. 5 lines 64-68) (ie. opening for filling developer at one end) which is closed up by a cap member (fig. 2 part 400) (ie. bottom wall member that is detachable from the cylinder body); and a cover (fig. 2 part 70; note: col. 6 lines 37-40) (ie. closing lid including a cylindrical wall) to seal the opening on the right side of the cylindrical first container after the apparatus is assembled (ie. indicates the capability for being detachable), and a toner supply port (fig. 2 part 68) (ie. developer discharge port) located at the opened right end of the container (side with part 61b in fig. 2) (ie. developer discharge port is provided at the outer end) for closing the opening of the toner supply portion (fig. 2 part 67) (ie. opening of the developer storage chamber) while attached to the container body, and the toner supply port is taught to have first and second shutter mechanisms for opening and closing off toner flow (fig. 2 parts 200 and 300; note: col. 7 line 64- col. 8 line 25 and col. 8 lines 41-61) (ie. discharge port opening closing member).

Ishida also teaches having bearing portions (fig. 2 parts 71 and 72; note: col. 6 lines 12-15) (ie. coupler mounting portion) on the inner portions of the cover to support an end portion (fig. 2 part 83b) (ie. coupler) of a rotary shaft (fig. 2 part 83) used to rotate a toner agitator (fig. 2 part 81) (ie. developer mixing member) located within the cylindrical container.

Ishida teaches that the toner supply port is located within a support shaft (fig. 2 part 103; note: col. 7 lines 45-52) (ie. discharge tube) that extends parallel to the rotary shaft (ie. developer discharge tube having an axis parallel with an axis of the cylindrical body)

Ishida further teaches a spiral shaft (fig. 8 part 101) (ie. developer discharge auger) located within the support shaft and connected to a small diameter gear (fig. 8 part 102) (ie. connection portion for transmitting a rotational force) at the outer end of the support shaft, with the spiral shaft having portions being located outside of the support shaft (fig. 2), and the first shutter mechanism has a rotary shutter member (fig. 2 part 201) that allows it to rotate integrally with the spiral shaft.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al. in view of Matsuoka et al. (US pn 5903806) .

Ishida teaches all of the limitations of the claims as laid out above, but does not teach a bottom wall of a cylindrical toner container being integrally formed with a handle.

It is Matsuoka who teaches a grip (fig. 5a part 314) (ie. handle) formed on the opposite end of a toner container from an outlet portion (fig. 5a part 321).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a grip/handle member on the opposite end wall from a toner outlet as taught in Matsuoka, when building a toner cartridge as taught in Ishida. One of ordinary skill would include the handle member to allow for easy attach and detach operations of the toner cartridge into the main apparatus (col. 13 lines 10-15).

6. Claims 9, 13, 14, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al. in view of Weed (US pn 5895149).

Ishida teaches all of the limitations as laid out above, but does not teach the use of a separate resilient thin wall container for storing developer and accommodated in a container body.

It is Weed who teaches the use of a separate toner supply insert (fig. 4 part 20) (ie. resilient thin wall container) made of a plastic material (ie. same as synthetic resin that form resilient thin cylindrical walls and having a closed end (fig. 4 part 28) and an open end (fig. 4 part 32) (ie. having an opening) to be inserted into an empty toner supply cartridge (fig. 4 part 59). Weed also teaches that the toner supply insert (ie. resilient thin wall container) will be locked into the toner cartridge (ie. container body) by lugs (fig. 5 part 38) (ie. fixing members for fixing the resilient thin wall container to the opening of the container body) on the open side of the insert that lodge against the circumferential lip (fig. 5 part 62; note col. 5 lines 44-50) (ie. in a tightly adhered space) of the cartridge opening.

It would have been obvious to a person of ordinary skill in the art at the time the

Art Unit: 2852

invention was made to utilize a separate toner supply insert as taught by Weed and use it to insert/replace toner into a toner processing unit as taught by Ishida. One of ordinary skill in the art would have been motivated to do so because the hollow toner supply inserts provide a simply constructed means to supply toner that can easily be replaced and recycled (col. 3 lines 60-65)

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al. in view of Trott et al. (US pn 5305064).

Ishida teaches all of the limitations from which the current claim depends upon. Ishida does not teach the spiral shaft (ie. auger) in his invention being made of a coil spring. It is Trott who teaches a toner supplying auger portion being made of a spiral wire (col. 4 lines 30-36).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to make the spiral shaft found in the toner container apparatus taught by Ishida be made of a spiral wire. One of ordinary skill in the art would have done so in order to ensure proper mixing of the toner as well as even distribution of a toner discharge (col. 3 lines 10-15).

8. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al. in view of Weed, and further in view of Kusano et al. (US 2002/0102113).

Ishida and Weed teach all of the limitations pertaining to the apparatus being claimed in the currently mentioned method claims as laid out previously above. Matsuoka further teaches that the toner insert of his invention can be removed and replaced with a new toner supply insert

Art Unit: 2852

(col. 6 lines 20-25) (ie. resilient thin wall container is not reused). Ishida and Weed do not teach a method of washing and reusing a container body and closing lid.

It is Kusana who teaches a cylindrical toner bottle (fig. 1 part 13) (ie. container body) having a mouth end piece (fig. 1 part 18) (ie. closing lid) similar to the toner containers taught by Weed and Kusano. Kusana teaches that the toner bottle and mouth are produced separate from each other and thus can be washed separately (page 4 paragraph [0072]) (ie. washed and reused).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made, to include measures to clean an outer toner bottle (ie. container body) and a mouth piece (ie. closing lid) as taught by Kusana, while throwing out a used toner supply insert (ie. resilient thin wall container) located within such an outer bottle as taught by Weed. One of ordinary skill in the art would want to clean a toner bottle and mouth piece to ensure they be clean enough for reuse (Kusana page 4 paragraph [0072]) while throwing out an old inner toner insert in order to avoid deformations from being acquired (Weed col. 2 lines 34-45).

Allowable Subject Matter

9. Claims 10, 11, 12, 21-24 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

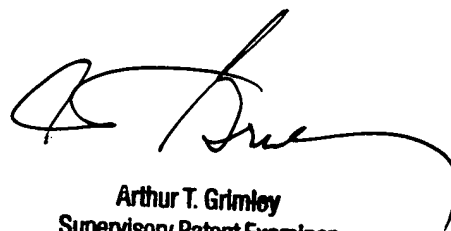
Hooper (US pn 6654577) is being cited for teaching the use of break away tabs on a toner housing body for the purpose of quick removal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Lee whose telephone number is 571-272-2846. The examiner can normally be reached on mon-fri 9:00 am-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PL 12/16/04



Arthur T. Grimley
Supervisory Patent Examiner
Technology Center 2800